

FIG. 1

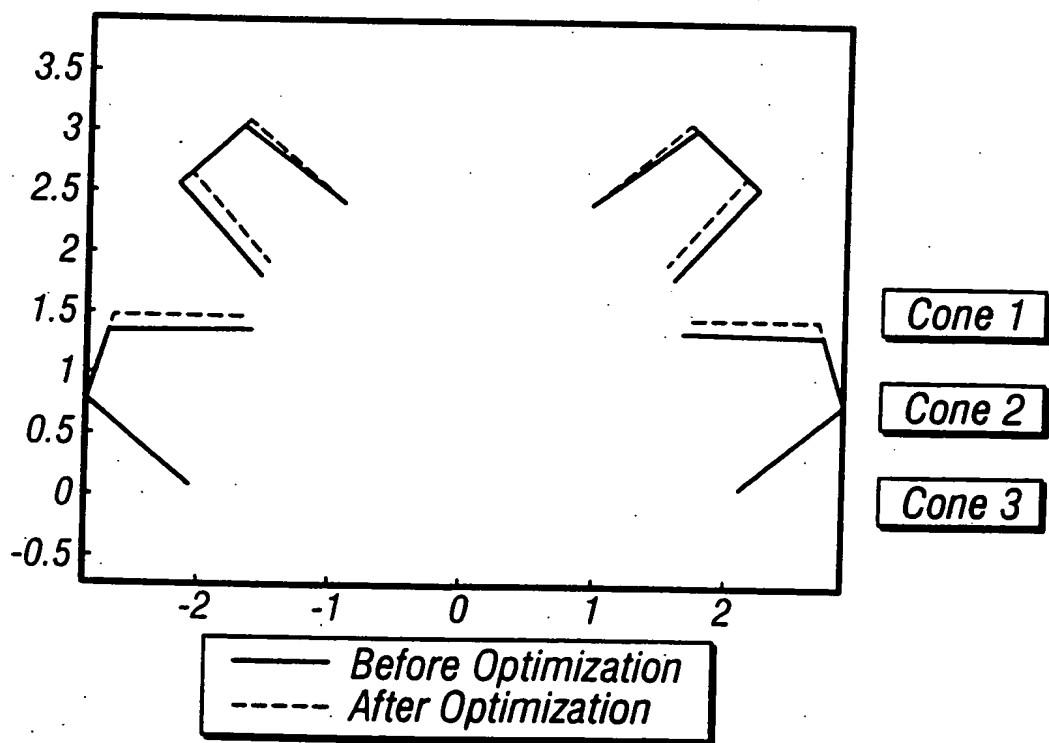


FIG. 7C

FORCE-BALANCED ROLLER-CONE BITS,
SYSTEMS, DRILLING METHODS, AND
DESIGN METHODS

Inventor: Shilin Chen
Date Filed: January 26, 2004
Attorney's Docket: 074263.0210 (SC-98-025 C3-A)
Sheet 2 of 8

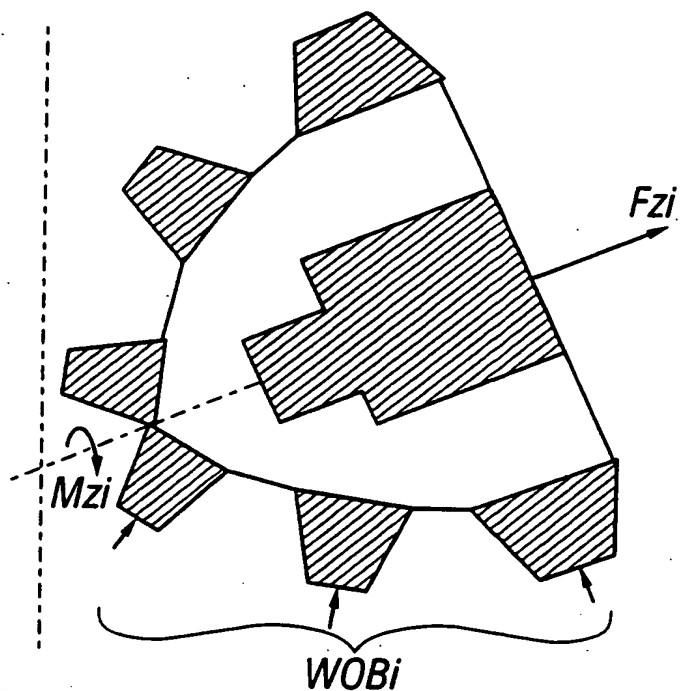


FIG. 2

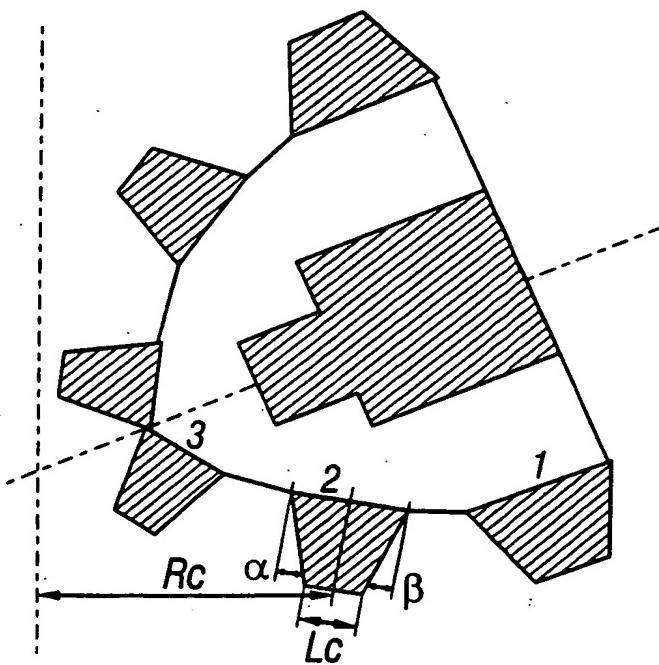


FIG. 3

**FORCE-BALANCED ROLLER-CONE BITS,
SYSTEMS, DRILLING METHODS, AND
DESIGN METHODS**

Inventor: Shilin Chen
Date Filed: January 26, 2004
Attorney's Docket: 074263.0210 (SC-98-025 C3-A)
Sheet 3 of 8

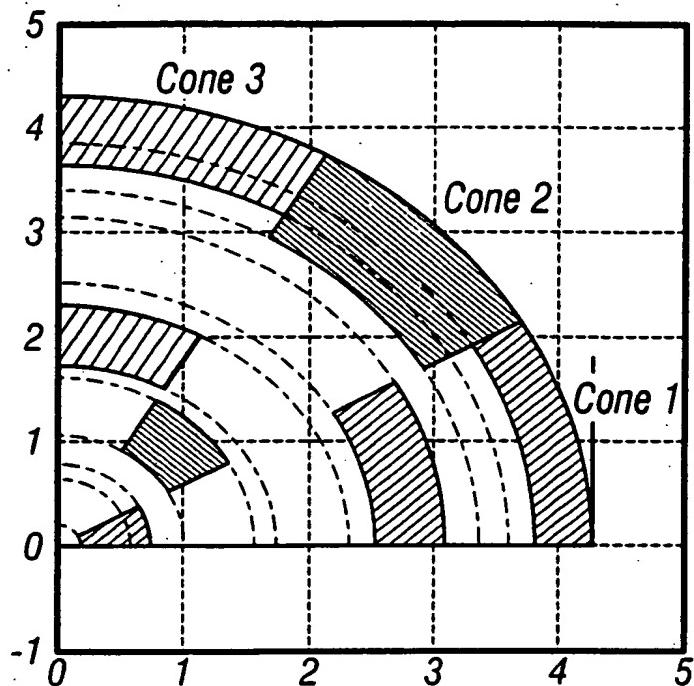


FIG. 4

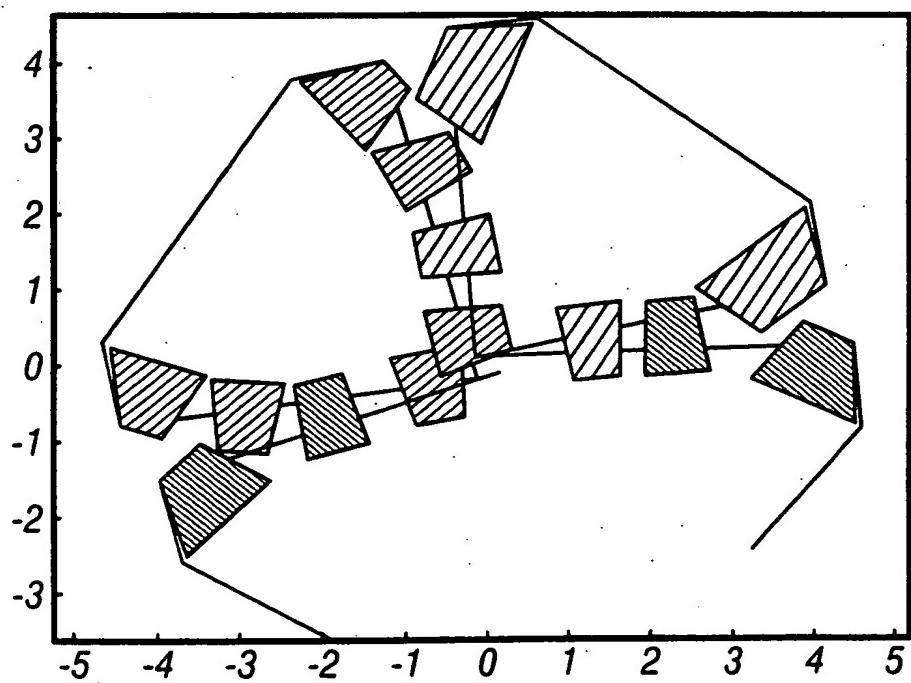


FIG. 5

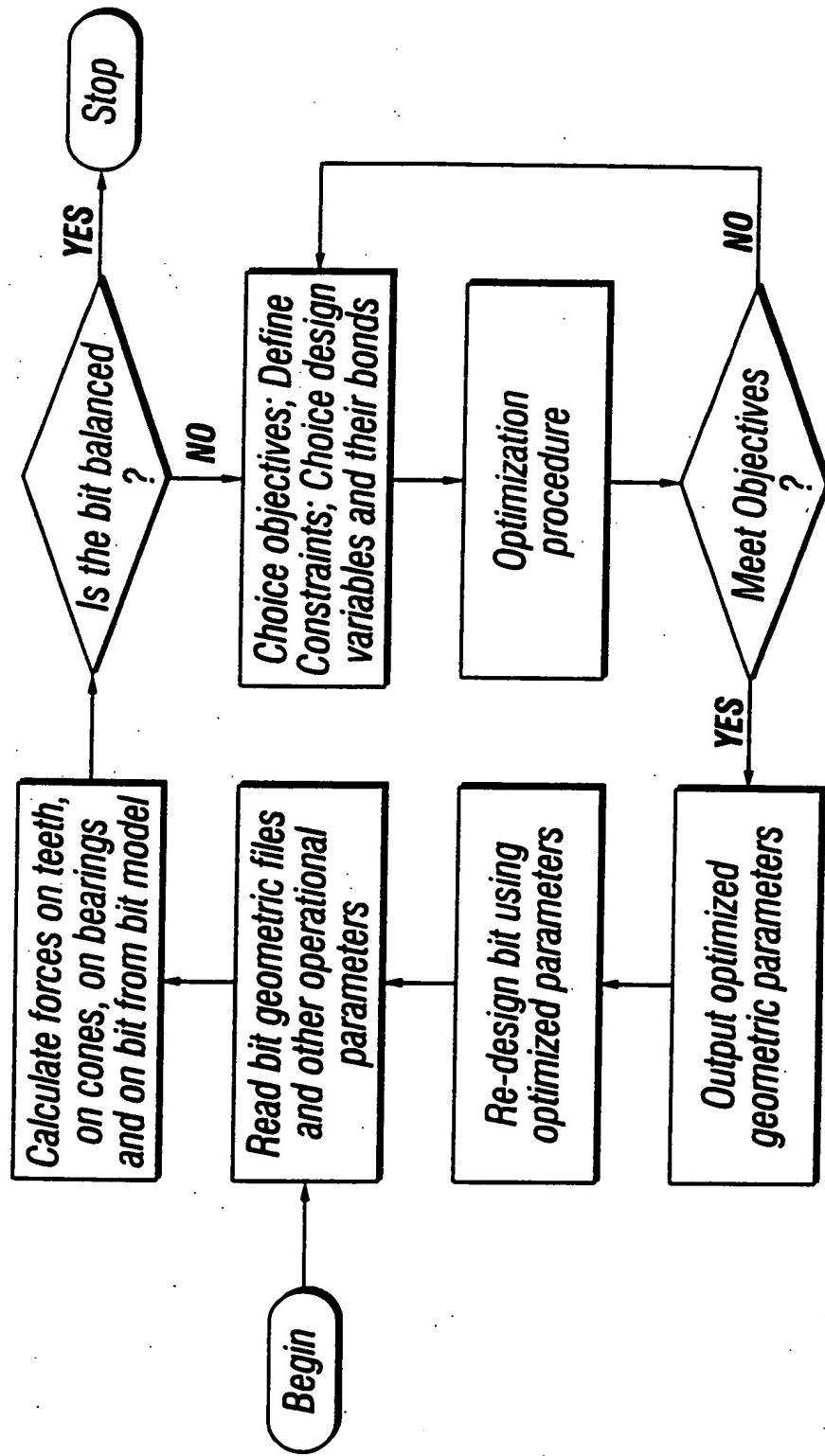


FIG. 6

C/8

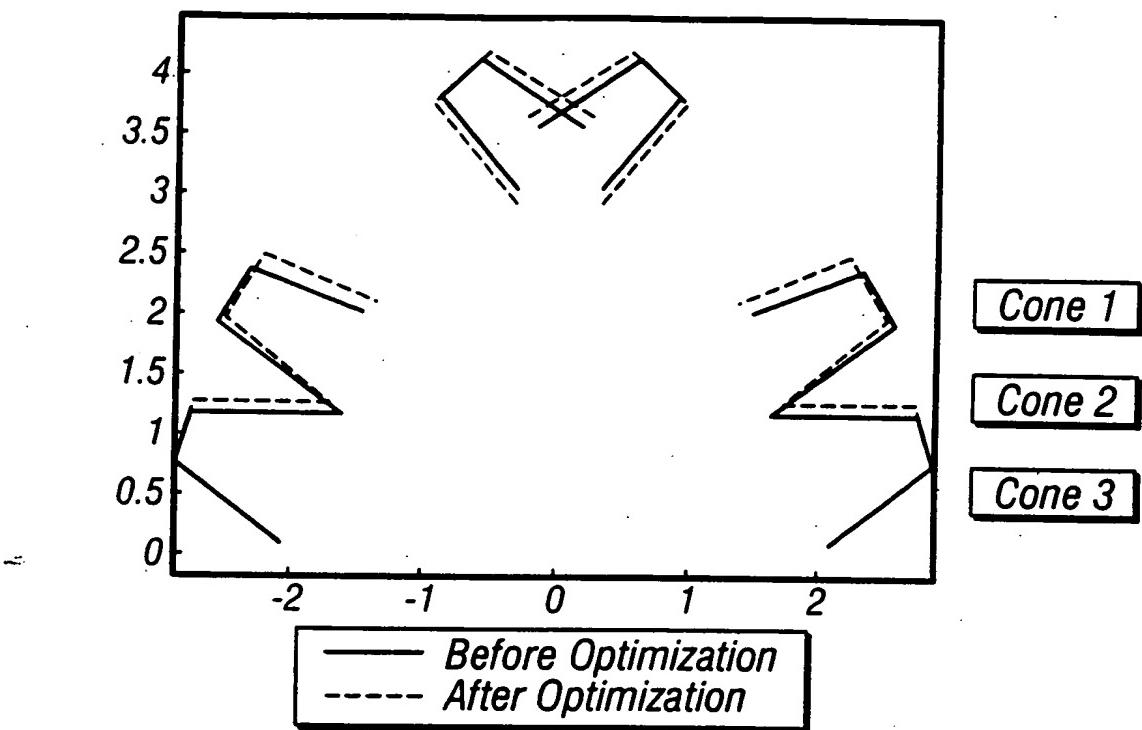


FIG. 7A

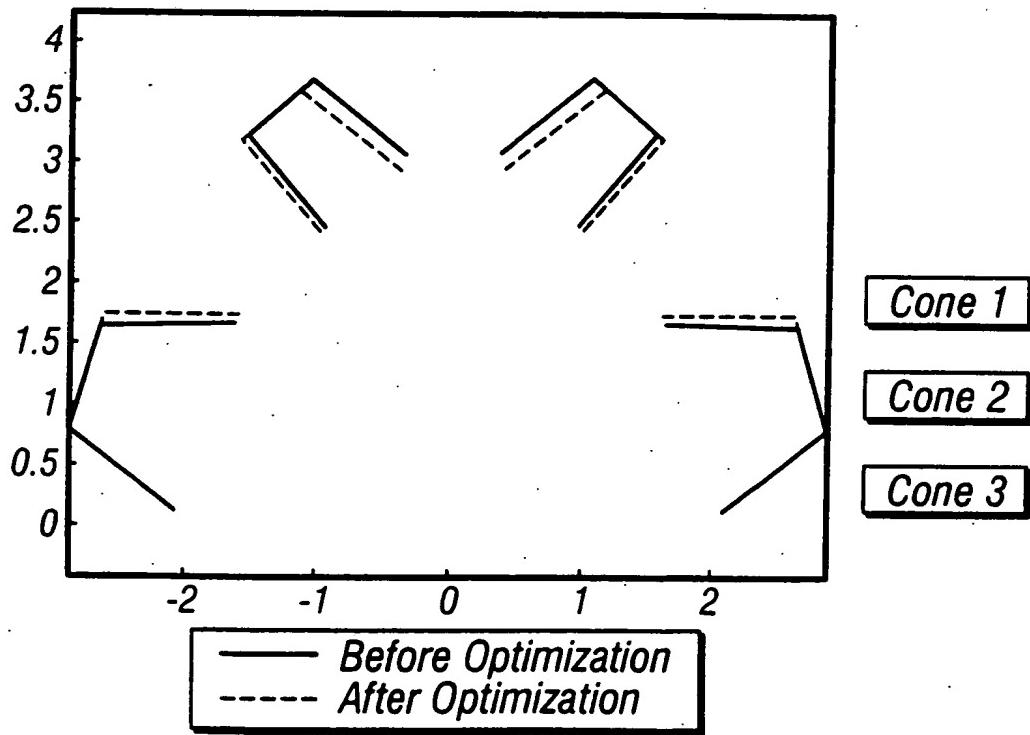


FIG. 7B

FORCE-BALANCED ROLLER-CONE BITS,
SYSTEMS, DRILLING METHODS, AND
DESIGN METHODS

Inventor: Shilin Chen
Date Filed: January 26, 2004
Attorney's Docket: 074263.0210 (SC-98-025 C3-A)
Sheet 6 of 8

U/I

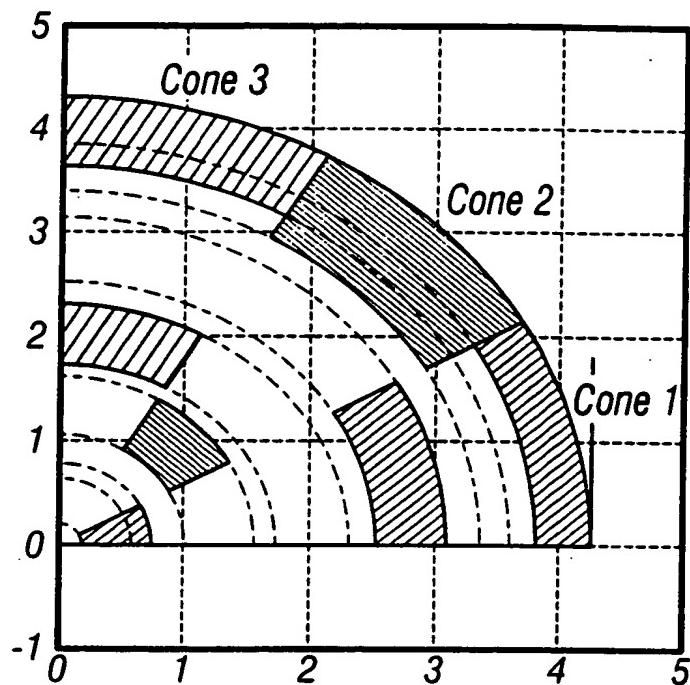


FIG. 8A

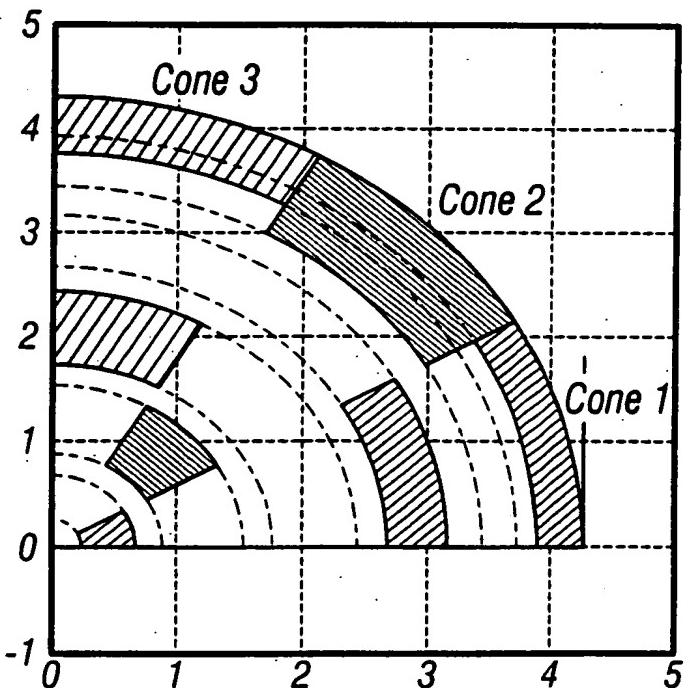


FIG. 8B

**FORCE-BALANCED ROLLER-CONE BITS,
SYSTEMS, DRILLING METHODS, AND
DESIGN METHODS**

Inventor: Shilin Chen
Date Filed: January 26, 2004
Attorney's Docket: 074263.0210 (SC-98-025 C3-A)
Sheet 7 of 8

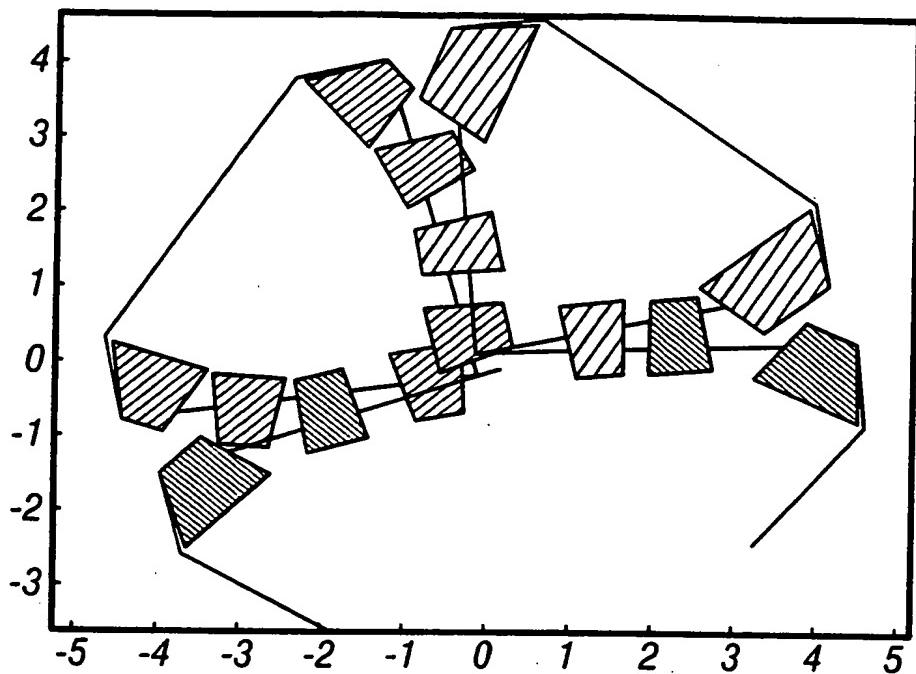


FIG. 9A

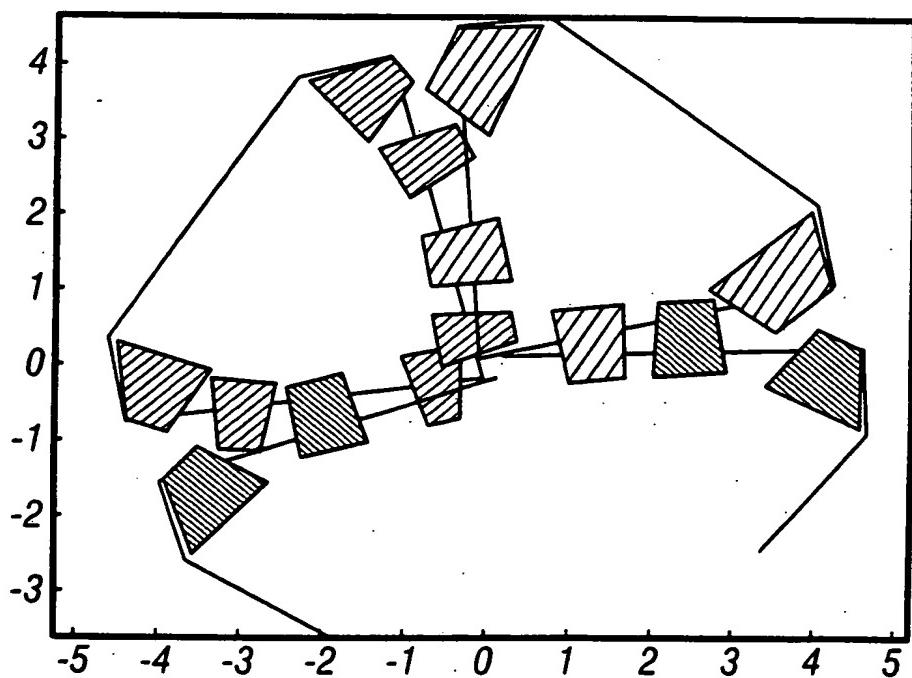


FIG. 9B

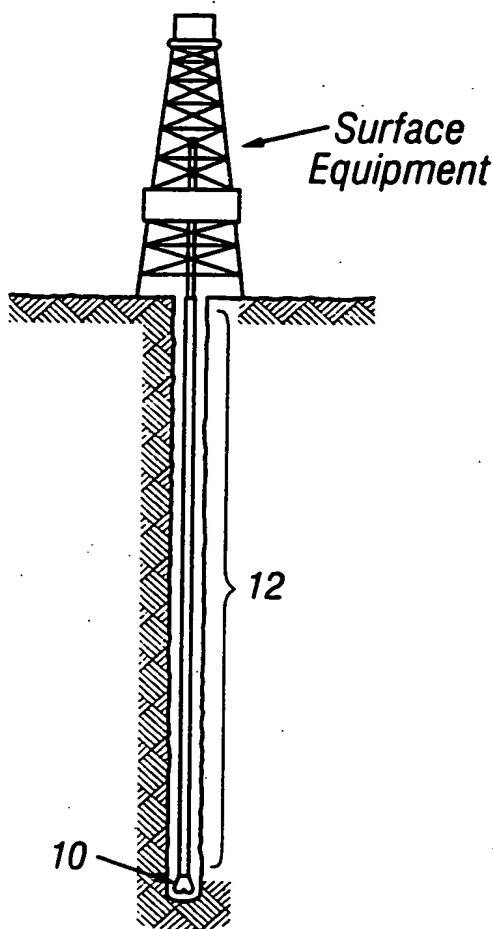


FIG. 10

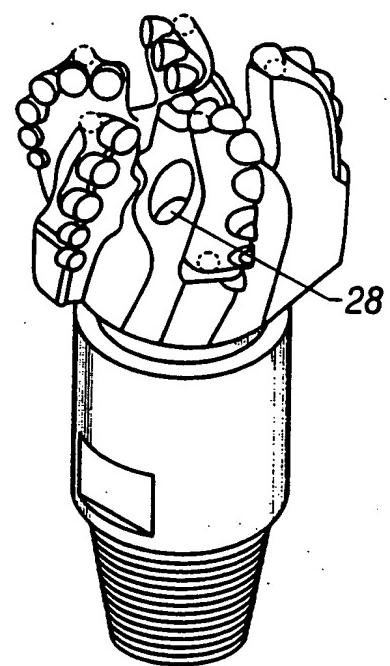


FIG. 11

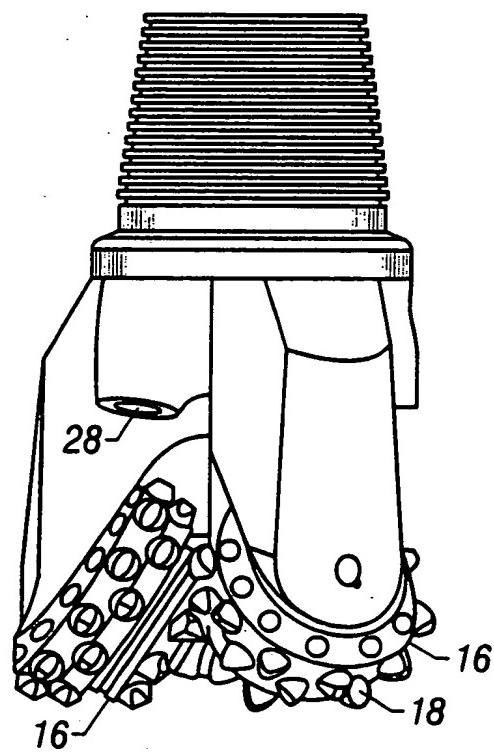


FIG. 12